

**ABSTRACT**  
**EFFICIENT IMAGE ALLOCATION FOR ZONE RENDERING**

Embodiments of the present invention efficiently support rendering of high resolution images under zone rendering. In particular, a bin array rectangle and binner clipping rectangle for determining primitive-zone intersections. Both of these rectangles are defined by graphics device state variables containing the screen-space location of the rectangle corners. In particular, the binner clipping rectangle is used to define the visible region in screen coordinates. Objects completely outside the binner clipping rectangle in one or more directions will be discarded. Objects that cannot be trivially rejected are subjected to bin determination. The bin array rectangle handles color buffer resolutions larger than could otherwise be accommodated by the optimally-renderer image limits.